

## **WHAT IS CLAIMED:**

1. A system for processing transactions, each transaction requiring one or more database accesses, the system comprising plural client applications, plural transaction switches, and plural transaction engines, wherein client applications requiring transactions are  
5 configured to send a request for such transaction to a selected one of said transaction switches, wherein said selected transaction switch is configured to send said transaction to a selected transaction engine to perform said one or more database accesses, and wherein said transaction switch selects said transaction engine in a manner that attempts to balance loading across said transaction engines in a predetermined manner.
- 10 2. The system of claim 1 wherein said transaction switch is configured to determine how many database accesses are required, and to utilize such determination, at least in part, to assign said transaction to a transaction engine.
3. The system of claim 1 wherein said transaction switch is configured to determine a priority of said transaction, and to utilize said priority, at least in part, to assign said transaction to  
15 a transaction engine.
4. The system of claim 1 wherein said transaction switch is configured to determine bandwidth utilization of a communications link to a database, and to utilize said bandwidth utilization, at least in part, to assign said transaction to a transaction engine.
5. The system of claim 1 wherein said transaction switch utilizes at least two of bandwidth  
20 utilization to a database, priority, and number of database accesses required in order to assign the transaction to a transaction engine.
6. The system of claim 1 wherein each client application comprises software for selecting

which transaction switch should be utilized to assign the transaction to a transaction engine.

7. The system of claim 6 connected to a contact center to process incoming or outgoing contacts.

5 8. A method of processing contacts at a contact center comprising the steps of:

establishing a communication session between a client application to process a transaction for said contact and a transaction switch;

determining a loading factor associated with said transaction;

10 based upon said loading factor, assigning said transaction to one of plural transaction engines to perform multiple database accesses in furtherance of said transaction, wherein said transaction switches do not communicate directly with said database, but said transaction engines do.

9. The method of claim 8 further comprising the step of broadcasting a value indicative of the present loading of each transaction engine to the transaction switches.

15 10. The method of claim 8 wherein said each of said communication sessions is associated with a backup link to facilitate communications in the event of a failure.

11. The method of claim 10 wherein said assigning comprises assigning both a primary and a backup transaction engine.

12. The method of claim 8 wherein the assigning is accomplished in a round robin fashion.

20 13. Apparatus for processing multiple transactions, some of which require multiple accesses to databases, said apparatus comprising plural transaction engines for directly accessing the databases to perform said required multiple accesses, and a switching system for

determining loading introduced by each transaction on a transaction engine to process said transaction, and for assigning said transactions in a manner based upon said loading.

5      **14.** The apparatus of claim 13 wherein said switching system is configured to attempt to balance the loading across multiple transaction engines in accordance with a predetermined criteria.

**15.** The apparatus of claim 14 wherein said predetermined criteria includes priority of transactions being processed.

**16.** The apparatus of claim 14 wherein said predetermined criteria includes volume of data to be entered or read out from a database.

10      **17.** The apparatus of claim 16 wherein each transaction engine is resident on a different computer.

**18.** The apparatus of claim 17 wherein the transaction engines communicate with each other via a local area network.

15      **19.** The apparatus of claim 17 wherein all communications between a transaction switch and a transaction engine are performed via backup up communications links.

**20.** Apparatus of claim 19 wherein at least one database has a synchronized backup and an archive backup that is not synchronized.